

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Previously Presented) A device for transport of molecules or energy across or into a biological barrier comprising:

a plurality of microneedles, each microneedle formed of a first material and a second material,

wherein the second material comprises rigid particles which are dispersed homogeneously throughout at least a portion of the first material or forms a portion of the microneedle and enhance the mechanical strength of the microneedles compared to microneedles formed without the second material.
2. (Original) The device of claim 1, wherein the first material is a polymer.
3. (Original) The device of claim 2, wherein the polymer is a biodegradable polymer.
4. (Original) The device of claim 3, wherein the polymer is selected from the group consisting of poly(lactide)s, poly(glycolide)s, poly(lactide-co-glycolide)s, polyanhydrides, polyorthoesters, polyetheresters, polycaprolactones, polyesteramides, poly(butyric acid)s, poly(valeric acid)s, polyhydroxyalkanoates, degradable polyurethanes, copolymers thereof, and blends thereof.
5. (Original) The device of claim 2, wherein the polymer is a non-biodegradable polymer.
6. (Original) The device of claim 1, wherein the first material, the second material, or both, comprise a metal.
7. (Original) The device of claim 1, wherein the first material, the second material, or both, comprise molecules to be released.

8. (Original) The device of claim 7, wherein the molecules to be released comprise a drug.

9. (Original) The device of claim 8, wherein the drug is a vaccine.

10. (Cancelled)

11. (Cancelled)

12. (Original) The device of claim 1, wherein the second material is a salt or other leachable particle.

13-21. (Cancelled)

22. (Previously Presented) The device of claim 1, further comprising a substrate from which the plurality of microneedles extend.

23. (Previously Presented) The device of claim 1, wherein the microneedles have lengths between about 10 and 500 microns.

24. (Previously Presented) The device of claim 23, wherein the microneedles have widths between about 10 and 500 microns.

25-54. (Cancelled)

55. (New) A device for transport of molecules or energy across or into a biological barrier comprising:

a plurality of microneedles, each microneedle formed of a polymer and a second material, wherein the second material comprises rigid particles which are dispersed homogeneously throughout at least a portion of the polymer or forms a portion of the microneedle and enhance

the mechanical strength of the microneedles compared to microneedles formed without the second material.

56. (New) The device of claim 55, further comprising a substrate from which the plurality of microneedles extend.

57. (New) The device of claim 55, wherein the polymer is a biodegradable polymer.

58. (New) The device of claim 57, wherein the second material comprises a drug.

59. (New) A device for transport of molecules or energy across or into a biological barrier comprising:

a plurality of microneedles, each microneedle formed of a first material and a second material, wherein the second material comprises rigid particles which are dispersed homogenously throughout at least a portion of the polymer or forms a portion of the microneedles and enhances the mechanical strength of the microneedles compared to microneedles formed without the second material; and

a substrate from which the plurality of microneedles extend.

60. (New) The device of claim 59, wherein the first material is a biodegradable polymer.

61. (New) The device of claim 60, wherein the second material is a drug.